CLAIM LISTING

1-36. Cancelled

37. (Currently Amended) A medical device comprising

a substrate constructed and arranged for insertion into a patient and having at least one lumen, said lumen having a surface,

wherein the substrate comprises polymers or copolymers of polyurethane or silicon; and

a plurality of monomer molecules directly graft polymerized on the surface of the substrate, forming a coating thereon, wherein said coating on said substrate is a polymer or copolymer or a derivative of said polymer or copolymer formed from a monomer or derivative thereof selected from the group consisting of an acrylamide, N,N-dimethylacrylamide, and mixtures thereof.

38. (Previously Presented) The medical device of Claim 37, wherein the substrate is a catheter, guide wire or medical instrument.

39. (Previously Presented) The medical device of Claim 38, wherein the catheter is selected from the group consisting of PTCA catheters, cardiology catheters, central venous catheters, urinary catheters, drain catheters, and dialysis catheters.

40. (Previously Presented) The medical device of Claim 37, wherein the coating graft polymer is a tie coat , adhering to a third succeeding layer.

41. (Previously Presented) The medical device of Claim 37, wherein the coating provides a property of absorbing large quantities of water to provide moisture absorption or of lubricity.

42. (Previously Presented) The medical device of Claim 37, wherein the coating provides functional groups to attach physiologically or pharmacologically active agents.; and the use of the graft a drug depot permitting the delivery of drugs from the grafts.

43. (Previously Presented) The medical device of Claim 37, wherein the coating provides a drug depot permitting the delivery of drugs from the grafts.

44. (Currently Amended) A medical device comprising

a substrate constructed and arranged for insertion into a patient and having at least one lumen, said lumen having a surface,

wherein the substrate comprises polymers or copolymers selected from the group consisting of polyurethanes, silicones, polyolefins, polyamides and latex; and

a plurality of monomer molecules directly graft polymerized on the surface of the substrate, forming a coating thereon, wherein said coating on said substrate is a polymer or copolymer or a derivative of said polymer or copolymer formed from a monomer or derivative thereof selected from the group consisting an acrylamide, N,N-dimethylacrylamide, polyethyleneglycolacrylate, alkylacrylate, pyridine, piperidene, maleic acid, hydroxyethyl methacrylate, and admixtures thereof.

45. (Previously Presented) The medical device of Claim 44, wherein the substrate is a catheter, guide wire or medical instrument.

46. (Previously Presented) The medical device of Claim 45, wherein the catheter is selected from the group consisting of PTCA catheters, cardiology catheters, central venous catheters, urinary catheters, drain catheters, and dialysis catheters.

47. (Previously Presented) The medical device of Claim 44, wherein the coating graft polymer is a tie coat , adhering to another succeeding layer.

48. (Previously Presented) The medical device of Claim 44, wherein the coating provides a property of absorbing large quantities of water to provide moisture absorption or of lubricity.

49. (Previously Presented) The medical device of Claim 44, wherein the coating provides functional groups to attach physiologically or pharmacologically active agents.

50. (Previously Presented) The medical device of Claim 44, wherein the coating provides a drug depot permitting the delivery of drugs from the grafts.

51. (Currently Amended) A medical device comprising

a substrate constructed and arranged for insertion into a patient and having at least one lumen, said lumen having a surface,

wherein the substrate comprises polymers or copolymers selected from the group consisting of polyurethanes, silicones, polyolefins, polyamides, polyvinylchloride and latex; and

a plurality of monomer molecules directly graft polymerized on the surface of the substrate, forming a coating thereon, wherein said coating on said substrate is a polymer or copolymer or a derivative of said polymer or copolymer formed from a monomer or derivative thereof selected from the group consisting an acrylamide, N,N-dimethylacrylamide, polyethyleneglycolacrylate, alkylacrylate, pyridine, piperidene, maleic acid, and hydroxyethyl methacrylate.

52. (Previously Presented) The medical device of Claim 51, wherein the substrate is a catheter, guide wire or medical instrument.

53. (Previously Presented) The medical device of Claim 52, wherein the catheter is selected from the group consisting of PTCA catheters, cardiology catheters, central venous catheters, urinary catheters, drain catheters, and dialysis catheters.

54. (Previously Presented) The medical device of Claim 51, wherein the coating graft polymer is a tie coat , adhering to another successive layer.

55. (Previously Presented) The medical device of Claim 51, wherein the coating provides a property of absorbing large quantities of water to provide moisture absorption or of lubricity.

56. (Previously Presented) The medical device of Claim 51, wherein the coating provides functional groups to attach physiologically or pharmacologically active agents.

57. (Previously Presented) The medical device of Claim 51, wherein the coating provides a drug depot permitting the delivery of drugs from the grafts.

58. (Previously Presented) The medical device of claim 44, wherein the lumen has both interior and exterior surfaces, and at least a portion of both the interior and exterior of the lumen is coated with monomer molecules graft polymerized to said surfaces.

59. (Previously Presented) The medical device of claim 51, wherein the lumen has both interior and exterior surfaces, and at least a portion of both the interior and exterior of the lumen is coated with monomer molecules graft polymerized to said surfaces.

60. (Previously Presented) The medical device of claim 37, wherein the lumen has both interior and exterior surfaces, and at least a portion of both the interior and exterior of the lumen is coated with monomer molecules graft polymerized to said surfaces.